

CHAPTER II:

QUICK REFERENCE GUIDE TO LAUNCH TYPES AND USES

| <u>If you have...</u> | <u>Consider using ...</u> | <u>as long as...</u> |
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| <p>“Naturally” suitable areas, e.g.:</p> <ul style="list-style-type: none"> ▪ Shorelines with sturdy banks ▪ Stable rock outcrops ▪ Beach areas with firm substrates | <ul style="list-style-type: none"> ▪ Existing site, with slight modifications, if necessary (e.g., adding sand or gravel to improve drainage) | <ul style="list-style-type: none"> ▪ Shoreline or riparian area is not vulnerable to erosion ▪ Space is sufficient to launch and maintain balance |
| <ul style="list-style-type: none"> ▪ An area with minimal current or exposure to elements | <ul style="list-style-type: none"> ▪ Reinforced natural site (<i>see Chapter IV</i>) ▪ Simple gravel ramp ▪ Floating launch ▪ Pipe or pile launch ▪ Cantilever launch | <ul style="list-style-type: none"> ▪ Access is hazard-free ▪ Environmental impact is minimal ▪ Water depth is sufficient for launching |
| <ul style="list-style-type: none"> ▪ Steep shoreline | <ul style="list-style-type: none"> ▪ Step-downs, timber steps, handrails, or rope supports ▪ Connecting structure or structures (e.g., gangways) with floating or pile launch ▪ Timber, concrete, or metal stairs ▪ Added soil to level slope (least favorable choice) | <ul style="list-style-type: none"> ▪ Slope is reduced to enable safe transition to water (and to meet ADA standards, if possible) ▪ Space is sufficient for safe launching |
| <ul style="list-style-type: none"> ▪ Shoreline with slippery slope | <ul style="list-style-type: none"> ▪ Corrugated/aggregate ramp ▪ Added gravel or other surface to provide traction ▪ Concrete mats | <ul style="list-style-type: none"> ▪ Added traction does not prevent access to paddlers with disabilities |
| <ul style="list-style-type: none"> ▪ Steep drop-off from shore | <ul style="list-style-type: none"> ▪ Concrete, timber, or metal steps/stairs with handrails and boat slide ▪ Concrete or other type of ramp with corrugated surface to provide traction | <ul style="list-style-type: none"> ▪ Area is protected from hazards, strong currents, and winds ▪ Launching area at water level is sturdy and provides sufficient space for launching |

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| <ul style="list-style-type: none"> Eroding shoreline | <ul style="list-style-type: none"> A different site! Native vegetation, along with gravel or rock, to help stabilize bank Vegetative or other buffer to protect shoreline Timber staircase that also reinforces bank | <ul style="list-style-type: none"> Alternative access locations are not available |
| <ul style="list-style-type: none"> Marshy areas | <ul style="list-style-type: none"> Boardwalk or fixed pier <hr/> <ul style="list-style-type: none"> Elevated walkway leading to floating launch or ladder (<i>see Chapter V</i>) | <ul style="list-style-type: none"> Construction will not cause damage to wetland habitat or jeopardize integrity of the shoreline <hr/> <ul style="list-style-type: none"> Walkway is either placed on above-ground supports or uses posts that are not placed too closely to the edge of the bank |
| <ul style="list-style-type: none"> Bulk-headed shoreline | <ul style="list-style-type: none"> Floating launch Implanted beach area (<i>see Chapter IV</i>) | <ul style="list-style-type: none"> Area is not too exposed Traffic is not heavy |
| <ul style="list-style-type: none"> Boardwalk | <ul style="list-style-type: none"> Floating launch Concrete ramp | <ul style="list-style-type: none"> Water depth is sufficient Area is not too exposed Traffic is not heavy |
| <ul style="list-style-type: none"> Launch site is adjacent to a wash or streambed carrying excessive flows and silt deposits | <ul style="list-style-type: none"> Natural materials to repair launch inexpensively Concrete buffer strip to break up the impact of flow (<i>see Chapter VIII</i>) | <ul style="list-style-type: none"> Site is maintained and screened for potential hazards after high flows |
| <ul style="list-style-type: none"> Environmentally sensitive area <hr/> <ul style="list-style-type: none"> Environmentally sensitive area that is the ONLY possible access location | <ul style="list-style-type: none"> A DIFFERENT SITE!! <hr/> <ul style="list-style-type: none"> Materials with least toxicity and require the least disruption during installation Elevated walkway to protect riparian areas and allow vegetation to grow (<i>see Chapter V</i>) | <ul style="list-style-type: none"> Alternative sites exist <hr/> <ul style="list-style-type: none"> Natural resource specialist, (and any relevant agencies) are an integral part of site planning, construction, and maintenance Integrity of shoreline is not jeopardized |

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|---|--|---|
| <ul style="list-style-type: none"> Budget constraints | <ul style="list-style-type: none"> Simple launch using native materials Makeshift construction (consider aesthetics here) Pile or pipe launch | <ul style="list-style-type: none"> Site safety, environmental health, and sustainability of launch is not compromised by using low-cost materials |
| <ul style="list-style-type: none"> Silt problems/low flow | <ul style="list-style-type: none"> Pile, pipe, or cantilever launch that extends to an area of sufficient depth/flow | <ul style="list-style-type: none"> Area is protected from hazards, strong currents, and winds |
| <p>In the following circumstances, floating launches can be effective as long as:</p> <p><i>(see Chapter V)</i></p> | <p>1) At least 9" exists between the launch and the highest water level</p> <p>2) Water level changes are not too rapid or dramatic</p> | <p>3) Water depth is sufficient for launching</p> <p>4) Launch is removed during freezing or flooding</p> |
| <ul style="list-style-type: none"> Fluctuating water levels or tides | <ul style="list-style-type: none"> Floating launch Beach area or sturdy bank <hr/> <ul style="list-style-type: none"> Pile or pipe launch | <ul style="list-style-type: none"> Current is not too strong Water depth is at least 2' to 3' <hr/> <ul style="list-style-type: none"> Water level remains below height of deck at all times |
| <ul style="list-style-type: none"> Periodic flooding | <ul style="list-style-type: none"> Removable floating launch or ramp (aluminum/metal) <hr/> <ul style="list-style-type: none"> Concrete stairs that can be easily maintained | <ul style="list-style-type: none"> Launch is removed when flooding occurs and before mudflats are exposed <hr/> <ul style="list-style-type: none"> Location is not vulnerable to damage by excessive debris or currents |
| <ul style="list-style-type: none"> Shallow water | <ul style="list-style-type: none"> Pile or pipe launch extending to deeper water Gangway or other connecting structure attached to floating launch | <ul style="list-style-type: none"> Structures are installed with minimal disturbance to wetlands; non-toxic or treated materials used |
| <ul style="list-style-type: none"> Busy launch area shared with motorized boats | <ul style="list-style-type: none"> Floating launch | <ul style="list-style-type: none"> Launch is located away from heavy motor boating traffic |
| <ul style="list-style-type: none"> Icing | <ul style="list-style-type: none"> Removable or modular launch, such as a floating or pipe launch Pile launch made of alternative wood product that will not damage in ice | <ul style="list-style-type: none"> Launch is removed before freezing begins Launch is monitored throughout ice season |

NOTES

DEFINITION OF TERMS

- **Abutment:** A masonry structure that supports pressure of an arch or bridge; *for purposes of this guide:* a wedge-shaped anchor that connects the end of a floating launch with the top of a launching ramp or connecting structure
- **Aggregate:** Sum of many heterogeneous things taken together; *for purposes of this guide:* a combination of materials (e.g., sand, gravel, slag) mixed with a cementing material to form concrete, mortar, or plaster; helps to increase traction
- **Bioengineering:** The use of live plants and plant parts as building materials for erosion control and landscape restoration
- **Buffer strip:** Strip of vegetation implanted along a stream or other water body that offers protection to a vulnerable area of shoreline from climatic elements and currents
- **Bulkhead:** A retaining wall along a shoreline or waterfront
- **Cleat:** A fitting device where a rope may be tied to provide support or anchoring; frequently has two projecting parts
- **Fender:** A protective device used on the edges of a launch to lessen shock and prevent damage to boats
- **Gabion:** A strong and flexible steel wire cage, filled with rocks, designed to abate erosion; may also house macro-invertebrates and provide shade and eddies for fish habitats
- **Gangway:** A removable passageway of planks enabling continuous access; often used to connect two structures or to connect a launch or other structure to the shoreline
- **Pile:** A long, slender column, typically made of timber, steel, or reinforced driven into the ground and used as a support for a launch or other horizontal platform
- **Pile guides:** Anchored pile holders that allow for vertical movement of a floating launch while maintaining its connection to another structure or shoreline anchor; are typically hoops made of welded steel bolted or welded to the frame of a launch
- **Ramp:** A sloped surface enabling traffic to move from one level to another; a slope for launching boats
- **Rebar:** Rod of steel placed into concrete as a reinforcement
- **Rip-rap:** A foundation or retaining wall made of stones, used to prevent erosion, that is often placed on or around an embankment
- **Stringers:** Support devices, usually made of wood, aluminum, or steel, used as a series of uniform pieces to reinforce decking on a launch structure

NOTES
